



UNITED STATES MARINE CORPS

MARINE CORPS BASE
PSC BOX 20004
CAMP LEJEUNE, NORTH CAROLINA 28542-0004

BO 4555.1D

BEMD

14 APR 1999

BASE ORDER 4555.1D

From: Commanding General
To: Distribution List

Subj: RECLAMATION AND UTILIZATION OF PRECIOUS METALS FROM SCRAP
AND WASTE MATERIALS

Ref: (a) MCO 4555.3C
(b) AC/S, Log ltr 5200 LOG of 9 Aug 93

Encl: (1) Silver-Bearing and Gold-Bearing Scrap Descriptions
(2) DD 1348-1A Sample Turn-in Document

1. Purpose

a. To provide information and instructions in establishing an effective Precious Metals Recovery Program within Marine Corps Base (MCB), Camp Lejeune and Marine Corps Air Station (MCAS), New River, hereafter referred to as the Installation.

b. These requirements are applicable to all organizations aboard the Installation to include: any command active, or reserve component; staff organization; supporting agency which is affiliated with the United States Marine Corps, Department of the Navy, or Department of Defense. This section also applies to organizations organic to or tenanted aboard the Installation, and those in transit or otherwise temporarily resident because of training or mobilization commitments.

2. Cancellation. BO 4555.1C.

3. Background. Reference (a) requires activity commanders to designate a local Precious Metals Recovery Coordinator to internally implement, monitor, and coordinate the activity's Precious Metals Recovery Program as prescribed therein.

4. Information. While the Defense Printing Service, Photographic Laboratories, and Medical/Dental Facilities are the most probable sources for recovery of silver from solutions used in processing photographic and x-ray film (fixing baths), there are other sources where silver bearing material is generated. Enclosure (1) contains a list of silver and gold bearing scrap descriptions.

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5. Policy

a. Maximum participation in the Precious Metals Recovery Program is required by all MCB, Camp Lejeune and MCAS, New River activities, including photographic, medical/dental laboratories, printing facilities, etc. Expenses incurred by activities participating in the program are not reimbursable.

b. Generating activities are responsible for the transportation of precious metals scrap (film, recovery cartridges) and harvested silver to the local Defense Reutilization Marketing Office (DRMO). Transportation costs are not reimbursable.

c. The DRMO is responsible for accepting all excess and surplus precious metal or precious metal-bearing materials, including scrap or harvested silver generated by the military services.

6. Action

a. Per reference (b), the Assistant Chief of Staff, Environmental Management Department (AC/S, EMD), is designated as the coordinator for the Precious Metals Recovery Program for commands located on MCB, Camp Lejeune. The Commanding Officer, MCAS, New River is designated as the coordinator for Precious Metals Recovery Program for commands located at MCAS, New River. Appointed Environmental Compliance Coordinators, (ECCs) will serve as the point of contact for their command for Precious Metals Recovery. The ECC guided by the instructions contained in reference (a), will establish an effective Precious Metals Recovery Program to consolidate and monitor the precious metal recovery efforts within their command.

b. Activities generating precious metal bearing materials (hyposolution greater than 5 parts per million (ppm)), but not having a recovery unit at their activities will obtain written permission from the cognizant ECC prior to transporting any precious metals material to a recovery site. Hyposolution shall not be transported on any public highway by the generating activity. Request for transportation of hyposolution will be processed by the unit's ECC. Once permission has been obtained, the owning activity will observe proper change of custody between the owning activity and the receiving activity. A log record of all precious metals recovery shall be maintained by each activity. Change of custody shall reflect the following information:

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- (1) Date and Time
- (2) Owning Activity/Name of Individual/Rank
- (3) Receiving Activity/Name of Individual/Rank
- (4) Quantity, number gallons, pounds, etc.


c. Those activities turning in precious metal bearing materials to DRMO will identify on the turn-in document (DD-1348-1A), the type of metals being turned in and the precious metal content. The turn-in document will be prepared as shown on enclosure (2). After turn-in of material, DRMO will provide a final copy of the DD 1348-1A to the generating unit through the cognizant ECC.

d. All generating and/or processing (recovery) activities shall have complete accounting records of all precious metals activity in their commands. The above procedure shall be conducted utilizing a log book entry.

e. Defense Reutilization Marketing Office will provide generating activities technical assistance, as required, to ensure visibility of precious metal generations, collection/recovery training requirements, and adequacy of collection/recovery methods, systems, and equipment.

f. Commands will not discharge fixer (hyposolution) directly to the sanitary sewer. Hyposolution will be collected and analyzed with a field test kit approved by the AC/S EMD; when determined to be less than 5 ppm, fixer may be discharged to the drain.

7. Concurrence. This Order has been coordinated with and concurred in by the Commanding Generals, II Marine Expeditionary Force; 2d Marine Division; 2d Force Service Support Group; and the Commanding Officer, Marine Corps Air Station, New River.


B. A. GOMBAR
Chief of Staff

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SILVER-BEARING AND GOLD-BEARING SCRAP DESCRIPTIONS

1. Silver-Bearing Scrap Designations

<u>Class</u>	<u>Estimated Silver Percentage</u>
CLASS A	90 (13.13) <u>1</u> /
Consists of used anodes, drillings from anodes and grain silver, wire for welding or brazing, silver flakes, silver extracted from spent hyposolution by the electrolytic process, and all other silver of a purity content of 90 percent or better.	
CLASS B	49 (7.15) <u>1</u> /
Consists of silver foil battery plates separated by magnesium plates and silver chloride sheets (primarily MK 61-0 and 67-1 batteries).	
CLASS C (Reserved)	
CLASS D	1 (1.15) <u>1</u> /
X-ray film, exposed industrial film and aerial film, millimeter film, and all types of shredded or cut-up film.	
CLASS E	1.5 (2.22) <u>1</u> /
CLASS F (Reserved)	
CLASS G (Reserved)	
CLASS H (Reserved)	
CLASS K	33 (4.81) <u>1</u> /
Silver-bearing amalgam.	
CLASS L	8 (1.14) <u>1</u> /

ENCLOSURE (1)

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Percentage

Silver-bearing plated electrical components,
such as leads, capacitors, and other silver
plated or bonded materials.

CLASS M

31
(4.47) 1/

Silver sludge and silver-bearing ash.

CLASS N

10
(1.46) 1/

Silver-bearing missile batteries
encapsulated in epoxy-type plastic
with metal cases and attachments.

CLASS P

8
(1.14) 1/

Silver recovery cartridge consisting of
a spun metallic filter through which the
spent hyposolution has been filtered.

CLASS R

24
(3.50) 1/

Desalter kits.

NOTE: 1/ Conversion factors shown in parentheses
when used as multipliers applied to the
number of avoirdupois pounds of scrap will
produce a reasonably accurate estimate of
the silver content equated to troy ounces.

2. Gold-bearing Scrap Designations

<u>Class</u>	<u>Description</u>	<u>Est. Gold % by Weight</u>
A	Dental Scrap	40.00% (5.8332)
A-1	Metallic (foil, leaf, wire, casting, and brazing alloy)	65.00% (9.4790)
A-2	Dental sweepings	15.00% (2.1875)

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B	Electronic scrap (plated or washed)	0.40% (0.0583)
B-1	Integrated circuits/assembly and pins (not boards or transistors) (pins are ferro magnetic)	12.00% (1.7500)

Gold-bearing Scrap DesignationsEst. Gold %
by Weight

B-2	Electronic circuits/assembly and strips	6.50% (0.9479)
B-3	Electronic hardware, pins and connectors	0.60% (0.0875)
B-4	Rivets (gold-plated)	0.50% (0.0729)
B-5	Electronic chassis parts	0.20% (0.0292)
C	Eye glass frames (gold filled)	4.00% (0.5833)
D	Buttons	0.90% (0.1313)
E	Insignia and medals	0.10% (0.0146)
F	Gold solutions, 8.3 pounds per gallon (0.7 troy ounces per gallon)	0.60% (0.0875)

ENCLOSURE (1)

DD FORM 1348-1A, JUL 91 ISSUE RELEASE/RECEIPT DOCUMENT

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PREVIOUS EDITION MAY BE USED

List Point of Contact (POC) in Block 27. Indicate whether silver cell is wet or dry in Block 17.

ENCLOSURE (2)